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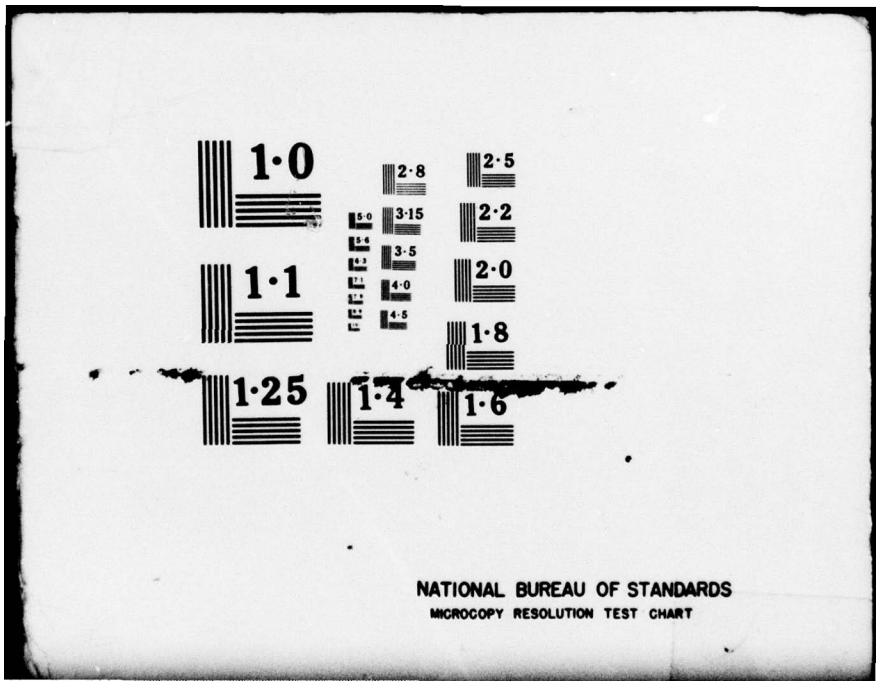
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SOME IMPLICATIONS OF THE RAND *ALCOHOLISM AND TREATMENT* STUDY FOR ALCOHOLISM RESEARCH

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SOME IMPLICATIONS OF THE RAND *ALCOHOLISM AND TREATMENT* STUDY FOR ALCOHOLISM RESEARCH

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The Rand Report, *Alcoholism and Treatment*,[1] was published by the Rand Corporation in early June, 1976. On the morning of the report's release in California, the National Council on Alcoholism held a press conference in New York City, labeling the Rand study as "dangerous, misleading, and not scientific."[2] In the months that followed, the Rand report was the subject of an intense and widespread controversy throughout the popular press and media, as well as in scientific journals. This controversy centered on the implications of one of the Rand findings--namely, that some alcoholics return to moderate drinking.

Now, away from the direct line of fire and with the benefit of more than a year's perspective on the experience, we can reflect on the findings of the Rand study and their implications for the field of alcoholism. These implications, we believe, should be considered at two levels. First, what do the study's empirical findings imply about the validity of the traditional disease model of alcoholism--a model that guides the great majority of current treatment approaches for the disorder? And second, what can be said about the response to the Rand report--the emotional reactions it evoked and the heated methodological debates over its findings--in terms of the definition of alcoholism as an area of scientific study?

BACKGROUND OF THE RAND STUDY

It will be useful to begin with some background on the purposes of the Rand study. In 1971, the National Institute of Alcohol Abuse and Alcoholism (NIAAA) initiated a major treatment program involving the creation of 45 alcoholism treatment centers nationwide. The purpose of the program was to demonstrate the concept of comprehensive care, with

*Views expressed in this paper are the authors' own, and are not necessarily shared by The Rand Corporation or its research sponsors.

each center offering a broad range of inpatient and outpatient services. In order to assess the effectiveness of the treatment offered by these centers, a monitoring system was instituted to collect evaluation data on every center's clients. The key features of this system were standardized intake interview forms and comparable 6-month follow-up forms which permitted assessment of change in outcome measures, including drinking behavior, impairment from alcohol and social adjustment.

Because the 6-month follow-up was fairly short-term and contained only limited information, NIAAA commissioned a special 18-month follow-up in eight of the centers beginning in 1973. The 18-month study was conducted by the Stanford Research Institute and employed expanded interview forms containing information comparable to the intake and 6-month instruments. Subsequently The Rand Corporation obtained all of these data--both the Monitoring System data and the special 18-month data--for use in a comprehensive study of the NIAAA Alcoholism Treatment Centers.

The purpose of the Rand study was to examine the treatment process and its outcomes. Specifically, our objectives were fourfold: (1) to evaluate the overall success of treatment, (2) to determine the prognostic factors of success in terms of client background characteristics, (3) to examine the differential effects of treatment compared with a no-treatment control condition, and (4) to measure the relative effectiveness of different kinds of treatments, especially the question of whether certain treatments were more effective for certain types of clients.

The data for this effort consisted of intake and follow-up interviews on about 2300 male clients from the national monitoring system and 600 additional cases from the special 18-month follow-up study. These follow-up samples essentially provided us with two independent replications, one year apart in the treatment and post-treatment process.

THE COMPLEXITY OF OUTCOME DEFINITIONS

The necessary first step in our study was to establish a criterion for defining successful outcome. As a scientific construct, alcoholism is neither a unitary nor clearly defined disorder. Consequently,there is no universally accepted definition among researchers as to what

constitutes recovery from the condition. While abstention is the most widely used goal of treatment, few researchers have adopted the abstinence outcome as an exclusive indicator of success. This has been true for at least two reasons. First, it is recognized that only a relatively small fraction of alcoholics actually become long-term abstainers; in fact, instability in drinking behavior is by far the most common pattern. Second, it is further noted that many nonabstinent alcoholics reduce their consumption substantially, either by controlling drinking levels or by alternating between periods of abstention and drinking. In light of these facts, the adoption of long-term abstention as a sole criterion for defining successful treatment seems overly restrictive for evaluating what appears to be a complex outcome phenomenon.

Our methodology and terminology for assessing treatment outcomes attempt to reflect this complexity. First, it should be noted that we use the term "remission" to indicate that the outcomes observed at 6- and 18-months may not reflect a long-term, stable result, but rather an interim condition which is subject to later change. Whether a short-term remission implies a longer-term "recovery" is a topic yet to be addressed by research.

We distinguished three types of remission outcomes as constituting treatment successes: Long Term Abstention (i.e., 6 months or longer), Short Term Abstention (i.e., abstention for at least 1 month prior to follow-up but not as long as 6 months), and Normal Drinking. The criteria for Normal Drinking included both limits on consumption *and* the requirement of no serious impairment from alcohol. Using this definition of remission, we found at both follow-up points that about two-thirds of the sample were in remission. At 18 months after treatment, however, only 24% were classified as long-term abstainers; 22% were classified as normal drinkers; and the remaining 21% as short-term abstainers.

This type of definition does pose some complicated questions. For example, some have argued that "normal drinking" is not appropriately a category of remission at all, on the assumption that such drinking represents only a temporary "holding" period on the way back to full alcoholic relapse. In the form of a scientific hypothesis, this position

predicts that at any one point in time, a long-term abstainer would be less likely to relapse than would an alcoholic who had previously been engaging in normal drinking. The extreme form of the same hypothesis--widely accepted in both lay and scientific circles--would hold that *all* normal drinkers will inevitably relapse over time.

The relapse issue was specifically addressed in our report in a special analysis using 220 clients who had follow-up data from both 6 and 18 months. These clients were classified according to remission status at 6 months; at 18 months, the corresponding remission status was examined in order to determine whether normal drinkers had higher relapse rates than long-term abstainers. The results of that analysis disconfirmed both forms of the hypothesis. That is, relapse rates for clients classified as normal drinkers and long-term abstainers, respectively, at the 6-month follow-up were virtually identical when examined at 18 months. We emphasized in the report that the size of the samples and the shortness of the one-year interval place qualifications on these results. Nonetheless, the analysis is important since it certainly fails to support the claim that normal drinking inevitably results in alcoholic relapse while abstention protects against relapse.

Other complex questions concern the cutting points and criteria that should be used in defining a "normal drinking" group. We used an upper limit of 3 ounces of ethanol per day, combined with the restriction that a normal drinker could not show signs of serious impairment. It should be noted that our limits were *not* based on a determination of what constitutes "healthy" or "safe" drinking; our reading of the literature indicates that no such limit has been established. Instead, we were guided by national survey data on drinking patterns in the adult male nonalcoholic population, and by the relationships between drinking and impairment in our own sample of alcoholics.

It has been argued that more stringent definitions could have been used, but we doubt the value of increasing the stringency of cutting points in this instance. With the definitions we used, the average consumption of normal drinkers at 18 months was .7 ounces of ethanol per day--just a little over one shot of whiskey or one can of beer. Moreover, of the 129 normal drinkers in this group, only five exceeded

2.0 ounces per day. In addition, whatever his level of drinking, every normal drinker had to pass a series of tests regarding possible impairment (ruling out those with such symptoms as tremors, frequent memory lapses, frequent morning drinking, missing work because of drinking, etc.). These tests *could* be made stricter, but our experiments with more stringent definitions showed that such definitional adjustments would affect the results only slightly; for example, the number of normal drinkers might be reduced from 22 percent to 17 percent if even occasional episodes of most symptoms were disallowed.

In the discussion and debate over definitions of normal drinking, several other important findings of the Rand study have been largely overlooked and deserve mention here. First, in our sample, clients who entered treatment had a slightly higher remission rate than those who had only a single contact with a center and who did not start formal treatment. However, when the treated sample is divided according to amount of treatment, the advantage is confined to those who received higher amounts. Clients with lower amounts of treatment have remission rates only slightly higher than those who received no treatment at all.

Perhaps even more important is the fact that clients who had only a single contact with a center and no formal treatment had substantial remission rates--on the order of 50%. This observation suggests that formal treatment may only play an incremental role in recovery. The crucial factor for success may indeed be the client's decision to contact a treatment center for help in the first place and to remain in treatment, rather than something that occurs during the process of formal treatment itself.

Another major finding was that among clients who did receive formal treatment, there were no strong and consistent differences in remission rates among different treatment settings (e.g., hospitals, outpatient clinics, halfway houses); nor were significant differences found for specific therapeutic techniques. It appears, then, that the fact of treatment rather than the specific type of treatment is important. We do recognize, of course, that the NIAAA data are not experimental in nature, so that uniform remission rates could have resulted from client self-selection factors that maximized treatment success.

Other independent studies which did utilize randomized assignments to treatment conditions, however, have also found uniform effects (see Emrick, 1975).

THE RAND STUDY AND TRADITIONAL MODELS OF ALCOHOLISM

Complexities and issues such as we have discussed are commonplace in the scientific literature. Yet few studies receive such intense scrutiny and public discussion as did *Alcoholism and Treatment*. What accounts for the unusual reaction to the study's normal drinking finding? We would suggest the explanation lies in the implications of the Rand study, and a growing body of similar studies, for traditional models of alcoholism.

Clearly, our data and those from many other studies conducted over the past 15 years suggest that not all successfully recovered alcoholics must or do abstain from alcohol. On the contrary, some are able to resume moderate drinking without suffering serious impairment or relapse as a consequence. This finding challenges the basic underpinning of most therapeutic approaches to alcoholism which demand total abstinence as a treatment goal. Moreover, the requirement of abstinence as the *sine qua non* of recovery from alcoholism is intimately linked to the larger paradigm of alcoholism that has dominated the field since the 1940s.

This paradigm is closely associated with the perspective of Alcoholics Anonymous and derives from the formalized disease model for alcoholism postulated by E.M. Jellinek. Chief among the assumptions of that model is that alcoholism is a progressive and irreversible disease process characterized by a chronic "loss of control" over consumption and craving for alcohol. The model further holds that the disease of alcoholism cannot be cured; its progressive course can, however, be successfully arrested but only by total abstinence from all alcoholic beverages. It is worth noting that Jellinek was careful to phrase his model as a "working hypothesis" which was based on his own clinical experience and on the retrospective accounts of recovered abstinent alcoholics.

Over the past 20 years, the Jellinek hypothesis has generated a good deal of scientific research. By now, the general consensus among researchers is that the empirical evidence to support either the loss of control or the craving phenomenon is at best weak and, more often, simply absent (Merry, 1966; Mello and Mendelson, 1971; Engle and Williams, 1972; Paredes et al., 1973). In addition, numerous studies have raised serious doubt as to the permanency and irreversibility of alcoholism by documenting a return to normal or social drinking without relapse by some alcoholics. Placed in its proper historical context, the Rand study is only another in a long list of empirical reports of normal drinking beginning with early accounts by Selzer and Holloway (1957) and Davies (1962). It is particularly notable that such reports have converged from various sources--from large-scale follow-up studies like ours, from single case reports, from treatment settings where moderate drinking was an explicit goal of treatment as well as from abstinence-oriented settings, and from studies of both treated and untreated alcoholics.

Despite the fact that the Jellinek hypothesis has not been confirmed by empirical evidence, the traditional disease model continues to be accepted as fact by large segments of the treatment community. Indeed, as Roizen has recently and cogently argued, "we usually think of a theory concerning a disease as 'coming before' and 'informing' the treatment regimen that it suggests. In the case of the classical alcoholism model, we have a theory whose acceptance-by-the-patient *is* the treatment" (1977, p. 173).[3] Some clinicians have continued to advocate abstinence as the sole goal of treatment on the pragmatic grounds that *it works*--despite the tentative scientific status of the theory from which abstention goals derive.

This tension between empirical evidence and therapeutic practice is clearly mirrored in the controversy over and, if you will, attack on the Rand report. The negative reaction to the Rand study--specifically to the normal drinking results--took three general forms. The first and most blatant was simply to deny the findings by discrediting the quality of the study (e.g., calling it "not scientific"), misconstruing its intentions (e.g., "cruel hoax," "playing Russian roulette

with the lives of human beings"), or impugning the integrity of its authors and the institution (e.g., calling the researchers "klutzes," or asking, "Would, perchance, Rand own stock in an alcoholic beverage company?").[4]

The second kind of negative reaction took the form of methodological criticism. Some critiques of the methodology, of course, were quite appropriate, constructive, and well-taken. Other criticisms, however, seemed to be based on misinterpretations, or misunderstandings of the study's actual methodology (such as claims that the results were based on analysis of 19 follow-ups out of a base N of 30,000).[5]

The final form of criticism was, in some sense, the most serious--at least from the viewpoint of scientific freedom. In this latter form, the debate over normal drinking seemed to change levels. Rather than denying the reality that some alcoholics are able to resume normal drinking, the thrust of these criticisms was directed instead at disseminating such "dangerous" information to the public. The essence of this position seems to be that even the suggestion that abstinence may not be absolutely necessary for every alcoholic is so dangerous as to warrant suppression. Dr. Marvin Block, the former chairman of the AMA Committee on Alcoholism, is quoted in the September, 1976 issue of *Medical World News* as follows:

> He [Block] says physicians have known for decades that some alcoholics wind up drinking moderately rather than either abstaining or being destroyed by alcoholism. 'But you don't publicize it because then people will stay away from treatment.'. . .[6]

It seems to us that there are very significant risks to not disclosing such information and important benefits to be gained from doing so. Accepting and developing alternative treatment goals in addition to--not in place of--abstinence offers the possibility of reaching a large segment of the alcoholic population who currently do not seek help from traditionally based therapies. More flexible treatment goals may also provide important interventions for early stage alcoholics and problem drinkers. Finally, in light of self-fulfilling prophecies, we must question the wisdom of teaching all alcoholics to believe that

even one drink leads inevitably to loss of control--especially when the belief has little basis in fact.

The experience with the Rand study offers some insights into the status of alcoholism as an area of scientific study. The normal drinking finding reported by Rand is an anomaly for the traditional Jellinek paradigm of alcoholism. This state of affairs is quite normal in the context of a developing science. In Thomas Kuhn's (1970) words, "creative scientists must occasionally be able to live in a world out of joint . . . this is the essential tension implicit in scientific research." To carry the Kuhnian metaphor a step further, the reaction to the Rand report may be viewed as symptomatic of a transition from an old paradigm, in which empirical results may be anomalous, to a new paradigm, in which the anomalous has become the anticipated. Kuhn has identified the symptoms of a paradigm shift as a proliferation of competing explanations for the anomalous findings, an expression of explicit discontent, a recourse to philosophy and a debate over fundamentals--all of which can generally be said to characterize the normal drinking debate in the alcoholism field.[7]

It may be that a change in the traditional paradigm for alcoholism will never occur, despite any amount of disconfirming empirical evidence. If this proves to be the case, alcoholism will simply be removed from the realm of scientific study. It is our hope, however, that empirical studies of alcoholism and its treatment will continue and, as with other scientific clinical fields, new paradigms will emerge to guide creative research and positive therapeutic application.

FOOTNOTES

1. D.J. Armor, J.M. Polich, and H.B. Stambul, *Alcoholism and Treatment*, Santa Monica, California: The Rand Corporation, R-1739-NIAAA, June, 1976.

2. *The New York Times*, Friday, June 11, 1976, p. 1.

3. Roizen, R., "The 'Rand Report'. Some Comments and a Response," *Journal of Studies on Alcohol*, *38*, 1977, 170-178.

4. *The New York Times*, Friday, June 11, 1976, p. 1; National Council on Alcoholism Press Release, Washington, D.C., July 1, 1976; *Los Angeles Times*, Thursday, January 13, 1977, p. 1.

5. A.A. Adinolfi and B. DiDavio, "The 'Rand Report'. Some Comments and a Response," *Journal of Studies on Alcohol*, *38*, 1977, 169.

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7. T.S. Kuhn, *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press, 1970.

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